

24 Apr 1991

TS9NN-D
CALIBRATOR, RANGE

1. GENERAL. This procurement requires a solid-state, radar range calibrator.

2. CLASSIFICATION. Type II, Class 5, Style C, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of providing marker pulses at preselected spacings for introduction into the video line of a radar display system within the minimum ranges and accuracies specified below.

3.1 Marker output.

3.1.1 Ranges. 1,000, 2,000, 10,000, 20,000, and 100,000 yds.

3.1.2 Accuracy. $\pm 0.01\%$ of range.

3.1.3 Amplitude. Variable from 0 to $\pm 3.5V$ into 75 ohms.

3.1.4 Pulse width. Continuously variable from 0.1 μs to 2 μs into 75 ohms.

3.2 Trigger output.

3.2.1 Repetition rate. Variable from 50 pps to 5,000 pps.

3.2.2 Trigger amplitude. Variable from $\pm 1V$ to $\pm 10V$ into 75 ohms.

3.2.3 Trigger delay. Variable from 0 to $\pm 2 \mu s$.

3.2.4 Trigger pulse width. 0.3 μs $\pm 0.05 \mu s$.

3.3 Source impedance. Switch selectable 75 ohm and 1,000 ohm loads for trigger and marker outputs.

3.4 External trigger input. Required amplitude range: 2.5V to 20V into 75 ohms.

3.5 Connectors. BNC(f).

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Operation at 400 Hz is not required. Maximum power consumption: 5W.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.